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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/587,802

10/10/2006

Jean-Marie Gouot

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OSTROLENK FABER GERB & SOFFEN
1180 AVENUE OF THE AMERICAS
NEW YORK, NY 100368403

EXAMINER

PIHONAK, SARAH

ART UNIT

PAPER NUMBER

1627

MAIL DATE

DELIVERY MODE

11/24/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/587,802	Applicant(s) GOUOT ET AL.	
	Examiner SARAH PIHONAK	Art Unit 1627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-19 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-19 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/26/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This application is a national stage application of PCT/EP05/02563, filed on 2/10/2005.

Priority

This application claims priority to Provisional Application No. 60637120, filed on 12/17/2004, and claims foreign priority to the following applications: 04356019.2, filed on 2/12/2004, and 04356096.0, filed on 6/11/2004.

Withdrawal of Finality of Previous Office Action

1. The indicated allowability of claims 12-16 is withdrawn in further consideration of the claims and the prior art. Rejections based on the new rejection are discussed in detail further in this office action.

This office action is accordingly made **NON-FINAL**.

Response to Terminal Disclaimer

2. In the response filed on 10/26/2009, the Applicants have submitted a terminal disclaimer to overcome the rejection of the instant claims for obviousness type double patenting over claims 9-17 and 19 of co-pending Application No. 10/588532, in view of Leroux. The terminal disclaimer has been disapproved, as the terminal disclaimer was not signed by an attorney of record. See paragraphs 3-5 of this office action. The rejection of the claims for obviousness type double patenting over claims 9-17 and 19 of co-pending Application No. 10/588532, is therefore maintained. For Applicant's convenience, the rejection will be restated further in this office action.

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3. The terminal disclaimer filed on 10/26/2009 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of co-pending Application No. 10/588532 has been reviewed and is NOT accepted.

4. An attorney or agent, not of record, is not authorized to sign a terminal disclaimer in the capacity as an attorney or agent acting in a representative capacity as provided by 37 CFR 1.34 (a). See 37 CFR 1.321(b) and/or (c).

5. The assignee has not established its ownership interest in the application, in order to support the terminal disclaimer. There is no submission in the record establishing the ownership interest by either (a) providing documentary evidence of a chain of title from the original inventor(s) to the assignee and a statement affirming that the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11, or (b) specifying (by reel and frame number) where such documentary evidence is recorded in the Office (37 CFR 3.73(b)).

Response to Remarks

6. In the office action dated 8/24/2009, claims 9-19 and 21 were rejected under 35 USC § 112, second paragraph. Claims 10-11 have been cancelled by the Applicants; therefore their rejection is considered moot. Claims 9, 12-19 and 21 have been amended to correct indefinite language present in the claims. The rejection of these claims under 35 USC § 112, second paragraph is therefore withdrawn.

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In the response filed on 10/26/2009, the Applicants have stated that claims 9, 17-19, and 21 have been amended to overcome the previous rejection under 35 USC 103(a) over WO 2001/11965, Cooke et. al., in view of WO 2002/069712, Holah et. al., and further in view of Colby, Weeds, 15, pp. 202-22. However, in further consideration of the claims, a modified rejection under 35 USC § 103(a) has been made. A detailed discussion of this rejection will follow.

Claims 1-8, 10-11, and 20 have been cancelled by the Applicants. Claims 9, 12-19, and 21 are pending.

7. Claims 9, 12-19, and 21 were examined.

8. Claims 9, 12-19, and 21 are rejected.

Claim Rejections-35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

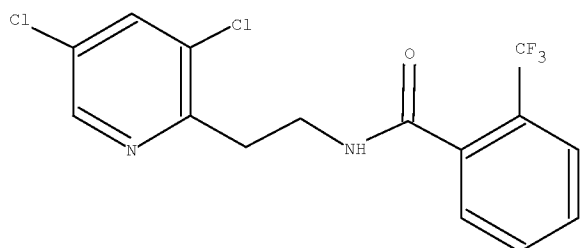
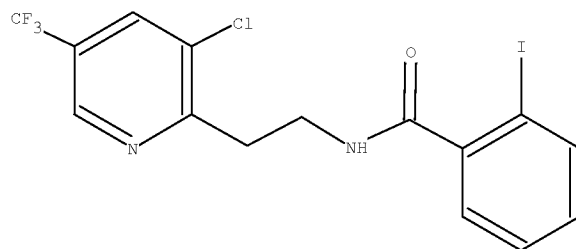
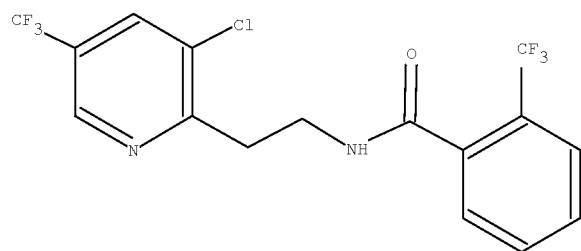
10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

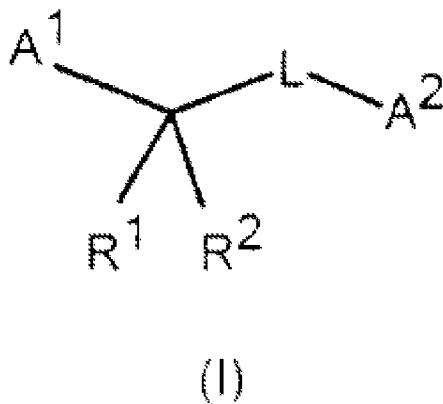
11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 9, 12-19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cooke et. al., WO 2001/11965, in view of Holah et. al., WO 2002/069712. The reference of Cooke et. al. was presented by the Applicants on the Information Disclosure Statement, and Holah et. al. was previously referenced in an earlier office action.

The claims are directed to a composition comprising (a) pyridylethylbenzamide compound, and (b) a compound capable of inhibiting the transport of electrons of the respiratory chain in phytopathogenic fungal organisms, particularly to a compound capable of inhibiting succinate dehydrogenase, or a compound capable of inhibiting mitochondrial ubiquinol:ferricytochrome-c oxidoreductase. The claims are directed to a composition comprised of both (a) and (b), in a weight ratio of (a)/(b) from 0.01 to 20, and further comprising an additional fungicidal compound (c). The pyridylethylbenzamide compounds claimed for component (a) are:



Cooke et. al. teaches compounds of formula (I) shown below:



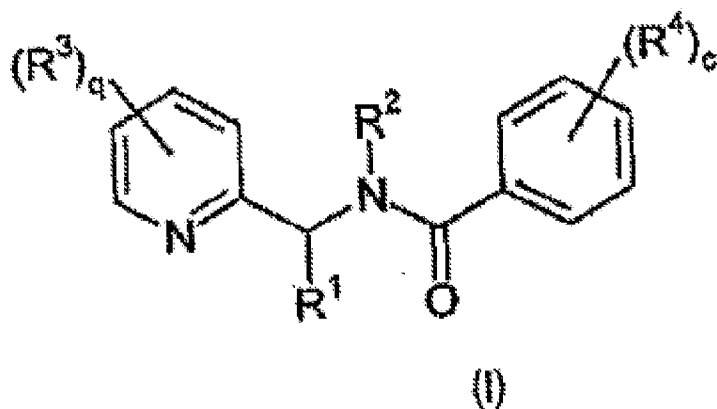
Where A^1 =2-pyridyl, which is substituted up to 4 groups, at least one of which is haloalkyl, etc.; R^1 , R^2 , R^3 , $\text{R}^5=\text{R}^b$, etc.; R^b = H, etc.; $\text{L}=-\text{CH}(\text{R}^3)\text{N}(\text{R}^5)\text{C}(=\text{X})-$, etc.; $\text{X}=\text{O}$, etc.; A^2 =carbocyclyl, which is substituted, etc (paragraphs [0002-0016]). In particular, Cooke et. al. teaches that substituents of the 2-pyridyl ring can be halogens and/or trifluoromethyl, and are present at the 3 and/or 5 positions of the ring (paragraphs

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[0017] and [0021]). It is also suggested by Cooke et. al. that A²=phenyl, which can be substituted by halogens (paragraph [0022] and [0026]). Cooke et. al. also teaches that the fungicides are present in a composition with an agriculturally acceptable support or carrier (paragraph [0039]), and that the composition can further comprise one or more additional active fungicides, insecticides, or antibacterial agents (paragraph [0041]). Therefore, Cooke et. al. suggests the pyridylethylbenzamide compounds instantly claimed.

While Cooke et. al. teaches that the pyridylethylbenzamide compounds can be combined with additional fungicidal agents, it is not explicitly taught that the additional fungicidal agents inhibit the transport of electrons in the respiratory chain of phytopathogenic fungi, or the weight ratio of pyridylethylbenzamide compounds to additional antifungal agents is from 0.01 to 20.

Holah et. al. teaches a composition comprised of (a) pyridylmethylbenzamide compounds and (b) at least one compound capable of inhibiting the transport of electrons of the respiratory chain or mitochondrial ubiquinol:ferricytochrome-c oxidoreductase (Abstract). The pyridylmethyl benzamide compounds taught by Holah et. al. are shown below:



Where R^3 =halogen, trifluoromethyl, etc.; R^1 =H, alkyl radical, etc.; R^2 =H, etc.;
 R^4 =halogen, trifluoromethyl, etc.; $q=0-4$; $c=0-5$ (p. 3, line 10-p. 4, line 11 ; p. 7, lines 5-11). Holah et. al. teaches that the pyridylmethylbenzamide compounds (a) are combined with compounds (b) in a weight ratio range from 1/10 to 10/1 (.1 to 10), (p. 9, line 17-p. 10, line 2) which is within the range instantly claimed. Holah et. al. teaches that the composition comprised of both (a) and (b) compounds provides additional crop protection against fungal organisms (p. 1, first paragraph), and demonstrates synergy (p. 12, line 5-p. 13, line 15). It is taught that compounds (b) include strobilurin derivatives, such as azoxystrobin, picoxystrobin, as well as compounds such as fenamidone, famoxadone, and cyazofamid (p. 8, line 18-p. 9, line 10). Holah et. al. also teaches that in addition to compounds (a) and (b), the composition further comprises additional fungicidal agents such as captan, copper hydroxide, mancozeb, and others, which meets the limitations of claims 17 and 18 (p. 10, line 3-p. 11, line 14).
The compounds taught by Holah et. al., in which R^1 , R^2 =H, are homologues of the pyridylethylbenzamide compounds claimed, as they differ by a $-CH_2-$ moiety between

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the pyridine ring and the benzamide nitrogen. Compounds which are homologues are expected to have similar chemical and physical properties, absent unexpected results. The compounds taught by Holah et. al. of formula (I), in which $R^1=CH_3$, $R^2=H$, are isomeric to the pyridylethylbenzamide compounds claimed, as both compounds have an ethyl moiety between the pyridyl ring and the nitrogen of the benzamide group. The ethyl group of the compounds taught by Holah et. al. has a 1,1-linkage, while the compounds claimed have a 1,2-linkage to the pyridyl ring and benzamide nitrogen. Holah et. al. teaches that the compounds of formula (I) include optical and geometric isomers ; therefore, the pyridylmethylbenzamide compounds taught by Holah embrace the pyridylethylbenzamide compounds instantly claimed.

As the compounds taught by Holah are fungicides, it would have been prima facie obvious for one of ordinary skill in the art to substitute the pyridylmethylbenzamide compounds taught by Holah et. al. for the pyridylethylbenzamide compounds taught by Cooke et. al. in the composition taught by Holah et. al., because both compounds are homologous and/or isomers of each other and are effective as fungicides. Therefore, one of ordinary skill in the art would have expected success in substituting the pyridylethylbenzamide compounds for the pyridylmethylbenzamide compounds taught by Holah et. al., along with combining these compounds with a compound (b) which inhibits the mitochondrial ubiquinol:ferritcytochrome-c oxidoreductase in phytopathogenic fungi, because Holah et. al. teaches that the combination of compounds (a) and (b) provides an enhanced effect against phytopathogenic fungal organisms. Additionally, while Holah et. al. does not explicitly teach that the composition

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comprises compounds which inhibit the transport of electrons by inhibiting succinate dehydrogenase in phytopathogenic fungi, it is taught that the composition can comprise agents such as carboxin, flutolanil, and furametpyr, which, as claimed, inhibit succinate dehydrogenase. Both types of compounds, in which either succinate dehydrogenase is inhibited, or in which mitochondrial ubiquinol :ferricytochrome-c oxidoreductase is inhibited, ultimately inhibit the transport of electrons in the cellular respiration cycle of phytopathogenic fungi. Holah et. al. explicitly teaches the presence of compounds which inhibit mitochondrial ubiquinol:ferricytochrome-c oxidoreductase in fungi; however, it would have been prima facie obvious for one of ordinary skill in the art to substitute these compounds for compounds which inhibit succinate dehydrogenase, such as carboxin, flutolanil, etc., as both types of compounds act to inhibit electron transport in phytopathogenic fungi.

Claim Rejections-Obviousness Type Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to

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be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 9, 12-19 and 21 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 9-17, and 19 of copending Application No. 10/588532 in view of Leroux, *Pest Management Science*, **47**, pp. 191-197.

This is a provisional obviousness-type double patenting rejection.

The instant claims are directed to a fungicidal composition comprised of the elected compound N-{2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]ethyl}-2-trifluoromethylbenzamide, N-{2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]ethyl}-2-iodobenzamide, or N-{2-[3, 5-dichloro-2-pyridinyl]ethyl}-2-trifluoromethylbenzamide and (b), which is a compound capable of inhibiting the transport of electrons in the respiratory chain of phytopathogenic fungi, in a (a)/(b) weight ratio from 0.01 to 20. The instant claims are also directed to an additional anti-fungal compound (c). The co-pending claims are directed to a fungicidal composition comprised of N-{2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]ethyl}-2-trifluoromethylbenzamide, N-{2-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]ethyl}-2-iodobenzamide, or N-{2-[3, 5-dichloro-2-pyridinyl]ethyl}-2-trifluoromethylbenzamide and (b), which is a compound that inhibits spore germination or mycelium growth, in a (a)/(b) weight ratio from 0.01 to 20. The co-pending claims are also directed to an additional anti-fungal compound (c). While the (b) components between the instant and co-pending claims act on different metabolic pathways of fungi, both sets of claims include a component (c). As the instantly claimed

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compounds of component (c), such as captan, are taught by Leroux as acting to inhibit spore germination (p. 191, right column, first paragraph), the instantly claimed composition includes compounds of the composition claimed in the co-pending application. Furthermore, the compound iprodione, which is claimed in the co-pending application, is taught as having the ability to both inhibit electron transport and mycelium growth (p 193, right column, third full paragraph). Additionally, the claims use comprising language, and therefore do not exclude the presence of additional agents. Therefore, the instant claims and co-pending claims are not patentably distinct from each other.

Information Disclosure Statement

13. The information disclosure statement (IDS) submitted on 10/26/2009 was filed after the mailing date of the previous office action on 8/24/2009. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement has been considered by the examiner, along with the French language patent publication, FR 2821718, and the English language equivalent, US PG Pub 2007/0293549.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SARAH PIHONAK whose telephone number is

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(571)270-7710. The examiner can normally be reached on Monday-Thursday 8:00 AM - 6:30 PM EST, with Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on (571)272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S.P.

/SREENI PADMANABHAN/

Supervisory Patent Examiner, Art Unit 1627